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AMENDMENTS TO THE CLAIMS

Please amend the claims to read as follows:

1. (Currently Amended) A rechargeable electrochemical battery cell comprising a closed housing in which there are positioned two or more units in electrical connection with each other which differ only in the active material, each such unit comprising a flat flexible bag of an ion conductive insulating material (membrane) containing a flat, conductive flexible frame of electrode and from both its sides a powder form active material, an electrolyte, where each electrode is connected with a conductor leading to the outside for current uptake, means being provided for maintaining pressure from granule to granule and from granule to electrode flexible frame for needed electrical contact.

2. (Original) A cell according to claim 1, which for decreasing dendrite hazards has a conductor executed in the first form of a flexible electrically conducting envelope which contains a flexible conductive support of active material in powder or granular form,

the second electrode being also in the form of a flexible electrically conductive envelope containing an electrically conductive support on which there is a layer of an electrochemically complementary active material, flexible ion-conductive membrane sheet positioned between the two envelopes, and means for exerting pressure on the assembly of electrode separator sheet or membrane/counterelectrode so as to maintain these in close contact with each other, said assembly being immersed in a suitable electrolyte, electrode connections being provided from each of the envelopes.

3. (Currently Amended) A cell according to claim 1 ~~or 2~~, where the electrode fabric is woven and pleated active materials is a flexible electrically conducting fabric mainly of carbon fibers and other active material fibers.

4. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 3~~, where the active material pair is one of the following: Ni/Cd, Ag/Zn, Pb/PbO.

5. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 4~~, where the support is a flexible fabric comprising a sequence of adjacent parallel conductive and insulating stripes.

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6. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 5~~, where the thickness of each electrode is between about 1 and 10mm.

7. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 6~~, where the particles of the active material are of a grain size of between about 1 and 10 microns, in a 0.5 to 3mm thick layer with or without a suitable matrix.

8. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 7~~, where the thickness of the fabric is between about 10 and 100 microns.

9. (Currently Amended) An electrochemical cell according to claim 1 ~~any of claims 1 to 8~~, where the cell is wound in a helical configuration with an external or internal spring applying a pressure on the assembly.

10. (Currently Amended) An electrochemical cell according to claim 1 ~~any of claims 1 to 9~~, having high mechanical strength comprising a high-strength, porous, micron pore size fabric separator.

11. (Original) A modified cell according to claim 1, being a fuel cell, where catalytically active material is supported by a ceramic substrate, the reaction being an interaction of oxygen and hydrogen producing water and energy.

12. (Original) A fuel cell according to claim 11, where a catalyst is plated on a conductive fabric with high surface area.

13. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 12~~, where the electrode comprises parallel fibers of carbon and fibers of active material, such as carbon and silver.

14. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 13~~, where the active material in discharged position is preliminarily pressed under medium pressure to achieve a porosity of 50-60% for the cathode and 30%-50% for the anode in the bulk condition, and where said active material is, pressed under flexible low pressure when said cell is fully assembled.

15. (Original) A cell according to claim 14 where the preliminary pressure used is about 100 to 200kg/cm² and where the low pressure used is about 0.2 to 5kg/cm².

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16. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 15~~, where the electrode's flexible conductive support (substrate) or separator positioned in the bulk active material is made from a flexible thin grid material, where said grid material is of the expanded metal type.

17. (Original) A cell according to claim 16, where the material of the grid is suitable for anodes made of cadmium, zinc, tin or indium and/or cathodes of nickel or silver.

18 (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 17~~, where the electrode's flexible conductive support positioned in the active material is made of woven graphite fibers, said fibers coated with metal to suppress gas evolution.

19. (Original) A cell according to claim 18 wherein the thickness of the metal coating applied to suppress gas evolution is 5 to 15 microns.

20. (Original) A cell according to claim 18, wherein the cell is a silver-zinc rechargeable cell and where the metal coating used is nickel or silver for the cathode and tin, indium, cadmium, lead, or zinc for the anode.

21. (Original) A cell according to claim 18, where the coating consists of two layers, a solid protective layer of 95-99% solidity and a second layer of 30-60% porosity.

22 (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 21~~ wherein the means for exerting pressure is the outer container of the cell, said container having an elasticity needed to maintain a pressure adequate to ensure electrical contact within the assembled cell.

23. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 22~~, wherein the cell is a spiral type cell and wherein the means for exerting pressure is executed by a central flexible rod or separator layer.

24. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 23~~, wherein the separator consists of three layers, the first layer imparting mechanical strength to the separator and providing first stage protection from silver oxide penetration, this layer made from a nylon, polypropylene or polyethylene treated woven fabric, a second layer preventing whisker and silver penetration and made from cellulose materials which increase in volume in electrolyte and produce a constant pressure and electrical contact between the electrode

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and active materials, and a third layer made of an ion separation polyethylene-polypropylene film and executed in the form of a closed bag.

25. (Currently Amended) A cell according to claim 1 ~~any of claims 1 to 24~~, wherein one of the electrodes has a semi-rigid consistency, said semi-rigid consistency having a porosity of 30-50 %, and said electrode executed by sintering, pressing or other method.

26. (Original) A cell according to claim 25, wherein the cell is a secondary silver-zinc cell and wherein the electrode formed as in claim 25 is the silver electrode.

27. (New) A rechargeable battery cell comprising:
a closed housing;
at least one flat flexible bag in said housing of an ion conductive insulating material;
an electrode in each of said at least one bag, said electrode including at least one plate of active material powder and at least one flat conductive flexible substrate, wherein each said electrode is in electrical connection with a conductor leading to the outside of said bag;
an electrolyte; and
means for maintaining mechanical pressure on said electrode in a direction substantially perpendicular to said substrate.